# INDEX TO VOLUME XX

# TELEPHONE ENGINEER

July 1 to December 31, 1918

*Indicates that the article is illustrated.

A

Absorb Bell, Jamestown Home to..... 41
Adaptability of P. A. X., Exemplifies..... 44
Addition to Chicago Plant, Large*..... 94
Adventure, The Telephone Industry's Greatest (editorial).....51-52
Advertising Division Moves, DuPont..... 146
Aerial Radio Telephone, New..... 235
Aero-Radio Telephone New Device..... 284
After-Convention Thoughts on the Revenue Question (editorial)..... 1-2
Agreement Adopted as Model, Form of..... 200
Aid to Simplifying Telephone Line Supply Needs ..... 147
All Lines, Government Controls and Operates .....55-60
Alternating Current Railroads, Induction from. By H. S. Warren.....116-120, 170-176
Aluminum Connector Sleeves..... 169
American Electric Absorbs Swedish; Now "North Works" ..... 235
American Electrical Goods in Chile..... 60
Anchor Demonstration, Illinois Men See.... 94
Another Decision for Competition (editorial). 196
Apparatus for Simultaneous Telegraphing and Telephoning, Castelli* .....85-86
Arkansas Companies Meet..... 70
"Armistice Day" Traffic. By Clifford Arrick .....256-257
Artificial Lines* .....83-84
Artistic Telephone Users..... 65
Association, Michigan Has New..... 156
Association Comment on Government Orders .....107, 157, 199, 258
A. T. & T. Financing..... 11
A. T. & T.. Bond Issue O. K.'d..... 98
A. T. & T. Gains..... 98
A. T. & T. Case to Federal Court, Chicago.. 49
Auto Transportation in France..... 87
Automatic, Los Angeles Retains..... 14
Automatic, York, Pa., to Use..... 22
Automatic Telephone System of French Thompson Houston Company*.....29-32
Automatic Electric Company Commemorates Flag Day* ..... 42
Automatic Idea, C. & P. Co. Abandons..... 78
Automatic, Portland Officials Like..... 94
Automatic Installation at Leeds, England.* By J. Hedley.....127-129
Automatics for South Africa..... 147
Automanual, North Electric Manufacturing Company to Make..... 189
Automatic in Honolulu, The*..... 190
Automatic, Fleet Corporation Uses..... 208

B

Barranguilla, Municipal System for..... 176
Basis of Compensation..... 200
Battery Charging, Mercury Rectiers for.* By S. E. Wallace.....23-24
Battery, Chemical and Physical Theory of the Lead Storage .....130-131
Belongs to Subscriber, Number..... 24
Berlin, The Telephone Service of.....168-169
Bethell, Union N..... 170
Big Service Offering Drive..... 208
Blocking New Wars.* By Herbert S. Houston .....25-28, 79-82, 123-126, 177-180, 217-220, 273-276
Blomeyer President of Texas Co..... 144
Bond Buyers Hold Back..... 95
Bond Issue O. K.'d, A. T. & T..... 98
Bonds All Taken, Telephone..... 122
Book Catalog for Telephone Men.....100-102
Booklet on Lead Covered Cable, Kellogg*... 284
Brevities of the Business..... .....50, 98-100, 148-152, 191-194, 236-244, 286-292
Bulletin on Kellogg Universal Switchboard, New* ..... 146
Bulletin on Four-Party Service, Kellogg*.... 283
Burleson's First Local Problem..... 114
Burleson Would Lower Rates..... 248
Business, Brevities of the..... .....50, 98-100, 148-152, 191-194, 236-244, 286-292
Business! Peace—And Now to (Editorial).. 245
Buys Hotels, Washington Company..... 60
Buying Government (editorial)..... 104

C

Cable, Conscripted ..... 87
Cable, Kellogg Booklet on Lead Covered*.... 284
Cables, Location of Defects in Underground*.84-85
California Transfers ..... 208
Castelli Apparatus for Simultaneous Telegraphing and Telephoning*.....85-86
Catalogs for Inventory, Using..... 4
Catalog. Book, for Telephone Men.....100-102
Cedar Poles, Substitute for..... 93
Cells, Utilization of Used*.....32-34
Central Office Practice, Modern*..... 234
Charges, Installation and Moving (editorial) ..... 153-154
Charging, Mercury Rectifiers for Battery.* By S. E. Wallace.....23-24
Chemical and Physical Theory of the Lead
Chicago Exchange, New..... 4
Chicago Company Still Installing..... 17
Chicago Rate Investigation..... 41
Chicago-A. T. & T. Case to Federal Court... 49
Chicago Telephone No. 500,000..... 60
Chicago Operators, Raises for..... 65
Chicago Earnings Gain Slightly..... 73
Chicago Plant, Large Addition to*..... 94
Chicago, August Sixteenth, Registered at..113-114
Chicago Issue, Flat Rate..... 144
Chicago Operators Raised..... 186
Chile, American Electrical Goods in..... 60
Circuits, Design of Transpositions for Parallel Power and Telephone.* By Harold S. Osorne.....163-167, 209-212, 262,266
City's Rights, Michigan Court Limits..... 70
College Courses, Iowa State..... 188
"Columbus 1492" ..... 14
Columbus Gets Its Percentage..... 13
Commission News, Public Utility..... ..35-41, 88-91, 136-142, 181-186, 223-228, 277-282
Company Buys Hotels, Washington..... 60
Companies Meet, Arkansas..... 70
Companies, The Smaller (editorial)..... 104
Compensation for Government Control.* By F. B. Mackinnon .....107-112
Compensation in the Railroad Case..... 115
Commission, Presenting Your Case Before the. By Harold L. Geisse.....121-122
Storage Battery .....130-131
Condition, Scoring Telephone Exchanges on.* By H. N. Faris.....249-255
Compensation of Engineers..... 142
Comment, Official Orders and Semi-Official.. .....157-160, 199-206, 258-261
Commissioner's Report on Federal Control, State .....161-162
Competition, Another Decision for (editorial) 196
Compensation, Basis of..... 200
Commission Asserts Itself, Interstate..... 216
Convention, After-Thoughts on the Revenue Question (editorial) ..... 1-2
Control Impends! Government Wire-..... 4
Convention, The U. S. I. T. A.'s War*..... 5-9
Conditions of Independent Telephony, The. By George W. Robinson..... 9-11
Contracts by Telephone..... 22
Conduit Work, A Mixer Suited to Manhole and* ..... 44
Convention, Exhibits at the.....45-47
Convention, North Dakota..... 49
Controls and Operates All Lines, Government .....55-60
Conscripted Cable ..... 87
Converter Solves Ringing Problem*..... 96
Convention, Kellogg at the..... 97
Control, Compensation for Government*. By F. B. Mackinnon .....107-112
Convention, Indiana's Twelfth..... 156
Control, State Commissioner's Report on Federal .....161-162
Consolidating Offices and Facilities (editorial) 195
Conscript, the Telephone as a..... 220
Convention in Illinois this Month..... 208
Connector Sleeves, Aluminum..... 169
Construction Restrictions Lifted..... 283
Contract, First Class-B..... 272
Copper Shortage in Germany.....134-135
Copper ..... 176
Corps, The Signal (editorial)..... 1
Court Limits City's Rights, Michigan..... 70
C. & P. Co. Abandons Automatic Idea..... 78

D

Dallas Merger Approved..... 70
Dallas Merger to Proceed..... 248
Dallas, Texas, Reorganization..... 228
Decision for Competition, Another (editorial) 196
Deferred Classification for Employees..... 188
Defects in Underground Cables, Location of.*84-85
Delaware, Ohio, Orders Equipment..... 97
Democracy, The Protection of. By Theo. N. Vail ..... 76
Denver's Signal Corps Company..... 21
Design of Transpositions for Parallel Power and Telephone Circuits.* By Harold S. Osborne .....163-167, 209-212, 262-266
Detectors for Wireless, Oscillation Valve.* By Dr. J. A. Fleming.....74-76
Detroit, Washington Investigates..... 200
Difficulties, Says Public Ignores War..... 54
Directory, National Telephone..... 14
Directories Furnish Peace Confetti..... 257
"Disinfecting" the Telephone*..... 272
Dividend Cheers Stockholders..... 135
Division of Engineering..... 145
Dominican Republic, Telephone Haiti to..... 248
Dominican Telephone Systems..... 176
Don'ts, Some Efficiency..... 24
Drop Wire Shortage..... 147
DuPont Advertising Division Moves..... 146

E

Earnings Gain Slightly, Chicago..... 73
Echoes of Omaha Independent..... 47
Efficiency Don'ts, Some..... 24
Eighteen Months for Minnesota Plan..... 43
Electrical Goods in Chile, American..... 60
Electrotypes and Lantern Slides to Meet Demand* ..... 188
Electricians Wanted, Trench Telephone..... 198
Electrical and Mechanical Engineers Wanted 198
Employment Service, Helping Federal..... 41
Employment Managers, Training of. By Henry P. Kendall.....77-78
Employment Managers, Training..... 235
England, Automatic Installation at Leeds.* By J. Hedley.....127-129
Engineers, Compensation of..... 142
Engineering, Division of..... 145
England, Too, They Do it in..... 212
Engineers for Service in the Signal Corps.215-216
European Telephone Practice. By Fred W. Scholz ..... ..29-34, 83-87, 130-135, 168-169, 229-233, 267-272
Examination for Senior Engineer..... 235
Exchanges, Scoring Telephone, on Condition.* By H. N. Faris.....249-255
Exchange, New Chicago..... 4
Exemplifies Adaptability of P. A. X..... 44
Exhibits at the Convention.....45-47

F

Facilities, Consolidating Offices and (editorial) ..... 195
Facilities for War Work, Speeding Up..... 43
Facts About State-Owned Telephones. By A. L. Levine.....15-17
Federal Employment Service, Helping..... 41
Federal Court, Chicago-A. T. & T. Case to.. 49
Federal Control, State Commissioner's Report on .....161-162
Field, News from the..... .....50, 99-100, 148-152, 192-194, 238-244
Financing, A. T. & T..... 11
First Class-B Contract..... 272
First Local Problem, Burleson's..... 114
First Lieutenant Edward I. Pratt*..... 191
Flat Rate Chicago Issue..... 144
France, Reconstruction in..... 284
France, Telephone Relays Used in*.....270-272
**Flag Day, Automatic Electric Company Commemorates*** ..... 42
Fleet Corporation Uses Automatic..... 208
Foochow Telephone Co. Flourishing..... 95
Foreign Orders* (Stromberg-Carlson)..... 145
**Ford for Sea Trenching, Stationary**..... 18
Form of Agreement Adopted as Model..... 200
Four-Party Service, Kellogg Bulletin on*.... 283
France, Auto Transportation in..... 87
France, New Telephone Selector Used in*... 133
French Thompson-Houston Company, Automatic System of*.....29-32
**French Measures to Save Materials***.....86-87
French-Speaking Operators Wanted—Rush!. 196
Front Lines, Telephone Work in..... 22
500,000, Chicago Telephone No..... 60

G

Gain Slightly, Chicago Earnings..... 73
Gains, A. T. & T..... 98
Germany, Platinum in..... 286
Germans, Wireless and the..... 87
Germany, Copper Shortage in.....134-135
Girls Over There, Our..... 49
Girls, How the Signal Corps Organized 100..67-70
Girl Operators Replace Jackies..... 129
Girls in France Protest Nicknames..... 233
Goods in Chile, American Electrical..... 60
Government Controlled Properties, Strike on (Editorial) ..... 246
Government Wire Control Impends!..... 4
Government Controls and Operates All Lines ..... 55-60
Government Buying (editorial)..... 104
Government Control, Compensation for.* By F. B. Mackinnon.....107-112
Government Ownership, The Myth of..... 122
Government Worries Investors..... 144
Government Orders .....107, 157, 199, 258
Great Lakes Telephone System..... 4
Great Peace Conference..... 248
Great Adventure, The Telephone Industry's (editorial) .....51-52
Grinding Machines, Stromberg's*..... 43
Growth, Keep Public Informed of*..... 234

H

Haiti to Dominican Republic, Telephone..... 248
Hancock Merchants Help..... 14
Helping Federal Employment Service..... 41
Help Signal Corps Recruiting, Independents. By H. E. Bradley.....66-68

Highway Telephones in Oregon..... 76
Highest System in the World..... 17
Honolulu, The Automatic in*..... 190
Horn Gaps on Telephone Lines..... 135
Horn, Klaxon, on Telephone..... 170
Hotels, Washington Company Buys..... 60
Hundred French-Speaking Operators Wanted —Rush! ..... 196
Hun, Listening in on the.....213-216
How the Signal Corps Organized 100 Girls.69-70

I

Ignores War Difficulties, Says Public..... 54
Illinois Men See Anchor Demonstration..... 94
Illinois Convention December 10..... 272
Illinois this Month, Convention in..... 208
Important Swedish Telephone Merger..... 285
Increase, Operators Ask..... 156
Independent Telephony, The Conditions of. By George W. Robinson..... 9-11
Independent Telephone Industry, The. By F. B. Mackinnon.....12-13
Industry, The Independent Telephone. By F. B. Mackinnon .....12-13
Indiana Meeting, Northern..... 41
Industry's Greatest Adventure, The Telephone (editorial) .....51-52
Independents Help Signal Corps Recruiting. By H. E. Bradley.....66-68
Indiana's Twelfth Convention..... 156
Indiana Convention in September..... 98
Induction from Alternating Current Railroads. By H. S. Warren.....116-120, 170-176
Influenza ..... 198
Injunction Stands, Ohio Wire..... 208
Installation and Moving Charges (editorial) ..... 153-154
Installation, Automatic, at Leeds, England.* By J. Hedley.....127-129
Installing, Chicago Company Still..... 17
Interstate September Report..... 228
Interference—Its Legal Status. By J. A. Whitlaw .....19-21, 71-73
Interstate Commerce Commission..... 28
International Commission Favors Metric System ..... 283
International Western Electric Company..... 147
Inter-State Merger at Last..... 248
Interstate Report for May..... 190
Interstate Commission Asserts Itself..... 216
Inventory, Using Catalogs for..... 4
Investors, Government Worries..... 144
Investigation, Chicago Rate..... 41
Iowa State College Courses..... 188
It's Pretty Soft for You!..... 180

J

Jackies, Girl Operators Replace..... 129
Jamestown Home to Absorb Bell..... 41

K

Kansas City Talking Merger..... 13
Kansas City Merger Near..... 190
Kansas City Merger Situation..... 276
Keep Public Informed of Growth*..... 234
Kellogg Booklet on Lead Covered Cable*... 284
Kellogg Bulletin on Four-Party Service*..... 283
Kellogg Company's Supply Department*..... 95
Kellogg at the Convention..... 97
Kellogg Universal Switchboard, New Bulletin on* ..... 146
Klaxon Horn on Telephone..... 170

L

Laboratory for Magnetic Research..... 96
Labor Comes Forward..... 115
Lantern Slides to Meet Demand, Electrotypes and* ..... 188
Large Addition to Chicago Plant*..... 94
Lead Covered Cable, Kellogg Booklet on*... 284
Leeds, England, Automatic Installation at.* By J. Hedley.....127-129
Legal Status, Interference—Its. By J. A. Whitlaw .....19-21, 71-73
Lewis, Year More Says..... 261
Limits City's Rights, Michigan Court..... 70
Lines, Government Controls and Operates All ..... 55-60
Lines, Artificial* .....83-84
Listenning in on the Hun.....213-216
Live Wire Era, The..... 142
Location of Defects in Underground Cables*.84-85
Local Problem, Burleson's First..... 114
Los Angeles Retains Automatic..... 17
Lower Rates, Burleson Would..... 248

M

MacKinnon, F. B., Comments on Government Orders .....107, 157, 199, 258
Magnetic Research, Laboratory for..... 96
Managers, Training of Employment. By Henry P. Kendall .....77-78
Manhole and Conduit Work, a Mixer Suited to* ..... 44
Materials, French, Measures to Save*.....86-87
Measures to Save Materials, French*.....86-87
Meals by Telephone..... 222
Mechanical Engineers Wanted, Electrical and 198
Meeting, Western Pennsylvania..... 54
Men, Patent Office Wants..... 68
Merger, Kansas City Talking..... 13
Merchants Help, Hancock..... 14
Mercury Rectifier for Battery Charging.* By S. E. Wallace .....23-24
Merger Approved, Dallas..... 70
Merger at Last, Inter-State..... 248
Merger, Postmaster Working on Portland.. 126
Merger Near, Kansas City..... 190
Merger to Proceed, Dallas..... 248
Metric System, International Commission Favors ..... 283
Michigan Has New Association..... 156
Michigan Proposes Standard Rates..... 187
Michigan Court Limits City's Rights..... 70
Michigan Traffic Association Reports..... 41
Michigan, Union-Bell Merger in..... 248
Minnesota Plan, Eighteen Months for..... 43
Minnesota Deal, Protest..... 91
Minnesota Merger Approved..... 144
"Mittel-Europa" ..... 14
Mixer Suited to Manhole and Conduit Work* 44
Modern Central Office Practice*..... 234
Morse Telegraphers Wanted..... 215
Municipal System for Barranquilla..... 176
Myth of Government Ownership, The..... 122

N

National Telephone Directory..... 14
New Chicago Exchange..... 4
New Revenue Law Situation. By F. B. MacKinnon .....42-43
News from the Field .....50, 99-100, 148-152, 192-194, 238-244, 287-292
New Telephone Selector Used in France*.... 133
New Bulletin on Kellog Universal Switchboard* ..... 146
New York Suffers..... 160
New Aerial Radio Telephone..... 235
North Dakota Convention..... 49
Northern Indiana Meeting..... 41
North Electric Manufacturing Company to Make Automanual.....?..... 189
"North Works," American Electric Absorbs Swedish; Now ..... 235
Number Belongs to Subscriber..... 24

O

Official Orders and Semi-Official Comment... .....157-160, 199-206, 258-261
Offices and Facilities, Consolidating (editorial) ..... 195
Of Interest to the Trade* ..42-47, 94-98, 145-147, 187-191, 234-235, 283-285
Ohio Wire Injunction Stands ..... 208
Omaha Independent, Echoes of..... 47
Operates All Lines, Government Controls and .....55-60
Operators, Raises for Chicago..... 65
Operators Replace Jackies, Girl..... 129
Operators Wanted—Rush! Hundred French Speaking ..... 196
Operators Ask Increase ..... 156
Operators Raised, Chicago..... 186
Opportunity, An ..... 142
Opposed to Compulsory Uniformity ..... 222
Oregon, Highway Telephones in..... 76
Oscillation Valve Detectors for Wireless.* By Dr. J. A. Fleming.....74-76
Our Girls Over There..... 49
Ownership, The Myth of Government..... 122
Ownership, Propaganda for Permanent (editorial) ..... 154

P

Parallel Power and Telephone Circuits, Design of Transpositions for.* By Harold S. Osborne.....163-167, 209-212, 262-266
Patents Recently Issued, Telephone.* By David S. Hulfish..48-49, 92-93, 143-144, 221-222
Patent Office Wants Men..... 68
Patent Office Report..... 120
P. A. X., Exemplifies Adaptability of..... 44
Peace—And Now to Business! (Editorial).. 245
Peace Conference, Great..... 248
Pennsylvania Meeting, Western..... 54
Percentage, Columbus Gets Its..... 13
Permanent Ownership, Propaganda for (editorial) ..... 154
Personal Notes .....50, 98-99, 148, 191-192, 236-238, 286-287
Phonettes, The ..... 233
Pictures, Stories in*.....3, 53, 105, 155, 197, 247
Plant, Large Additions to Chicago*..... 94
Platinum in Germany..... 286
Poles, Substitute for Cedar..... 93
Poles, Wood, Have New Enemy..... 126
Points in Wireless Telephony, Some*.....131-133
Portland Officials Like Automatic..... 94
Portland Merger, Postmaster Working on... 126
Positions for Women..... 14
Postmaster Working on Portland Merger.... 126
Postmaster General's Orders....107, 157, 199, 258
Postmaster General Squelches Strike..... 255
Power and Telephone Circuits, Design of Transpositions for Parallel.* By Harold S. Osborne .....163-167, 209-212, 262-266
Practice, European Telephone.* By Fred W. Scholz ..29-34, 83-87, 130-135, 168-169, 229-233, 267-272
Practice, Modern Central Office*..... 234
Pratt, First Lieutenant Edward I.*..... 191
Preparing for the Return (editorial).....103-104
Presenting Your Case Before the Commission. By Harold L. Geisse.....121-122
Private Road, Use of..... 21
Prince Edward Island Direct Line..... 212
Protection of Democracy, The. By Theo. N. Vail ..... 76
Protest Minnesota Deal ..... 91
Propaganda for Permanent Ownership (editorial) ..... 154
Psychology of Telephony, The.* by John Lee .....61-65
Public Utility Commission News..... ..35-41, 88-91, 136-142, 181-186, 223-228, 277-282
Public Ignores War Difficulties, Says..... 54
Public Informed of Growth, Keep*..... 234

Q

Questionnaire Going Out..... 135

R

Radio Telephone, New Aerial..... 235
Radio Men Wanted, Telephone and..... 198
Raised, Chicago Operators..... 186
Raises for Chicago Operators..... 65
Railroad Case, Compensation in the..... 115
Railroads, Induction from Alternating Current. By H. S. Warren.....116-120, 170-176
Raises for Springfield, Mo., Operators..... 191
Rate Investigation, Chicago..... 41
Rate Standards, Service Standards Precede.* By H. N. Faris.....207-208
Rates, Burleson Would Lower..... 248
Rates, Michigan Proposes Standard..... 187
Rectifiers for Battery Charging, Mercury.* By S. E. Wallace.....23-24
Reconstruction in France..... 284
Recruiting, Independents Help Signal Corps. By H. E. Bradley.....66-68
Registered at Chicago August Sixteenth..113-114
Relays Used in France, Telephone*.....270-272
Reminiscences, Mr. Sunny's..... 114
Report, Patent Office..... 120
Report on Federal Control, State Commissioners .....161-162
Research, Laboratory for Magnetic..... 96
Return, Preparing for the (editorial)....103-104
Revenue Question, After-Convention Thoughts on the (editorial)..... 1-2
Revenue Law Construction, New. By F. B. MacKinnon ..... 42
Revision of Safety Code..... 189
Rights, Michigan Court Limits City's..... 70
Ringing Problem, Converter Solves*..... 96
Road, Use of Private..... 21

S

Safety Code, Revision of..... 189
Save Materials, French Measures to*.....86-87
Says Public Ignores War Difficulties..... 54
Scoring Telephone Exchanges on Condition.* By H. N. Faris.....249-255
Sea Trenching, Stationary Ford for*..... 18
Selector Used in France, New Telephone*.. 133
Semi-Official Comment, Official Orders and .....157-160, 199-206, 258-261
Service, Turkish Telephone ..... 34

Service Suffers, New York..... 160
Service of Berlin, The Telephone.....168-169
Service, Standardized (editorial).....195-196
Service Standards Precede Rate Standards.* By H. N. Faris .....207-208
Service Offering Drive, Big..... 208
Shortage in Germany, Copper.....134-135
Shortage, Drop Wire ..... 147
Signal Corps, The (editorial)..... 1
Signal Corps Company, Denver's..... 21
Signal Corps Needs Technical Men..... 47
Signal Corps Recruiting, Independents Help. By H. E. Bradley .....66-68
Signal Corps Organized 100 Girls, How the.69-70
Signal Corps, Engineers for Service in....215-216
Simultaneous Telegraphing and Telephoning, Castelli Apparatus for*.....85-86
Sleeves, Aluminum Connector..... 169
Slides, Electrotypes and Lantern, to Meet Demand* ..... 188
Smaller Companies, The (editorial)..... 104
Solves Ringing Problem, Converter*..... 96
Some Efficiency Don'ts..... 24
Some Points in Wireless Telephony*.....131-133
Speeding Up Facilities for War Work..... 43
Springfield, Mo., Operators, Raises for..... 191
State Owned Telephones, Facts About. By A. L. Levins.....15-17
Stationary Ford for Sea Trenching*..... 18
State Commissioners Report on Federal Control .....161-162
Standard Rates, Michigan Proposes..... 187
Standardized Service (editorial).....195-196
Standards, Service, Precede Rate Standards.* By H. N. Faris .....207-208
Still Installing, Chicago Company..... 17
Stockholders, Dividend Cheers..... 135
Storage Battery, Chemical and Physical Theory of the Lead.....130-131
Stories in Pictures*.....3, 53, 105, 155, 197, 247
Stromberg's Grinding Machines*..... 43
Strikes on Government Controlled Properties (Editorial) ..... 246
Strike, Postmaster General Squelches..... 255
Stromberg-Carlson, Foreign Orders*..... 145
Stromberg, Teaching the People How*..... 187
Subscriber, Number Belongs to..... 24
Substitute for Cedar Poles..... 93
Sunny's Reminiscences, Mr..... 114
Supply Department, Kellogg Company's*.. 95
Swedish, American Electric Absorbs..... 235
Swedish Telephone Merger, Important..... 285
Switchboard, New Bulletin on Kellogg Universal* ..... 146
System, Great Lakes Telephone..... 4
System of French Thompson Houston Company, Automatic* .....29-32

T

Talk from the Boss ..... 135
Tax on Luncheon Bills ..... 14
Teaching the People How* (Stromberg)... 187
Technical Men, Signal Corps Needs..... 47
Telephone System, Great Lakes..... 4
Telephone, Haiti to Dominican Republic..... 248
Telephone Industry, The Independent. By F. B. MacKinnon .....12-13
Telephone Exchanges, Scoring on Condition.* By H. N. Faris.....249-255
Telephones, Facts About State-Owned. By A. L. Levine.....15-17
Telephone Work in Front Lines..... 22
Telephone Practice, European.* By Fred W. Scholz .....
..29-34, 83-87, 130-135, 168-169, 229-233, 267-272
Telephone Patents Recently Issued.* By David S. Hulfish..48-49, 92-93, 143-144, 221-222
Telephone Industry's Greatest Adventure, The (editorial) .....51-52
Telephone No. 500,000 Chicago..... 60
Telephony, The Psychology of.* By John Lee .....61-65
Telephone Relays Used in France*.....270-272
Telephone Users, Artistic..... 65
Telegraphing and Telephoning, Castelli Apparatus for Simultaneous*.....85-86
Telephoning, Castelli Apparatus for Simultaneous Telegraphing and*.....85-86
Telephone Bonds All Taken..... 122
Telephone Selector Used in France, New*... 133
Telephone Lines, Horn Gaps on..... 135
Telegraph and Telephone ..... 135
"Telephones Like Sausepans"..... 147
Telephone Circuits, Design of Transpositions for Parallel Power and.* By Harold S. Osborne.....163-167, 209-212, 262-266
Telephone Service of Berlin, The.....168-169
Telephone and Radio Men Wanted..... 198
Telegraphers Wanted, Morse..... 215
Telephone Troops Lead Attack..... 216
Telephone as a Conscript, The..... 220
Texas Co., Blomeyer President of..... 144
Theory of the Lead Storage Battery, Chemical
Theory of the Telephone*.....229-233, 267-270
and Physical .....130-131
They Do It in England, Too..... 212
Thompson-Houston Company, French Automatic System of*.....29-32
Thoughts on the Revenue Question, After-Convention (editorial)..... 1-2
Traffic, "Armistice Day." By Clifford Arrick .....256-257
Traffic Association Reports, Michigan..... 41
Trade, of Interest to the*.....
..42-47, 94-98, 145-147, 187-191, 234-235, 283-285
Training of Employment Managers. By Henry P. Kendall .....77-78
Transportation in France, Auto..... 87
Transpositions for Parallel Power and Telephone Circuits, Design of.* By Harold S. Osborne .....163-167, 209-212, 262-266
Training Employment Managers..... 235
Trench Telephone Electricians Wanted..... 198
Trenching, Stationary Ford for Sea*..... 18
Turkish Telephone Service ..... 34

U

Underground Cables, Location of, Defects in .....84-85
Universal Switchboard, New Bulletin on Kellogg* ..... 146
Union-Bell Merger in Michigan..... 248
Union N. Bethell..... 170
Uniformity, Opposed to Compulsory..... 222
Use of Private Road..... 21
Used Cells, Utilization of*.....32-34
Users, Artistic Telephone ..... 65
Using Catalogs for Inventory..... 4
U. S. I. T. A.'s War Convention, The*..... 5-9
U. S. I. T. A. Comment on Government Orders .....107, 157, 199, 258
Utilization of Used Cells*.....32-34

V

Vail Invited to Assist..... 261
Valve Detectors for Wireless, Oscillation.* By J. A. Fleming.....74-76

W

Walnut Wanted ..... 222
Wants Men, Patent Office..... 68
War Convention, The U. S. I. T. A.'s*.... 5-9
War Work, Seepding Up Facilities for..... 43
War Difficulties, Says Public Ignores..... 54
Wars, Blocking, New. By Herbert S. Houston .....
..25-28, 79-82, 123-126, 177-180, 217,220, 273-276
Washington Investigates Detroit..... 206
Washington Company Buys Hotels..... 60
Western Electric Company, International.... 147
Western Pennsylvania Meeting..... 54
When Wire Is Priceless..... 285
Wire Control Impends! Government..... 4
Wireless, Oscillation Valve Detectors for.* By Dr. J. A. Fleming.....74-76
Wireless and the Germans..... 87
Wireless Telephony, Some Points in*.....131-133
Wire Shortage, Drop..... 147
Wire Injunction Stands, Ohio..... 208
Women, Positions for..... 14
Wood Poles Have New Enemy..... 126
Work in Front Lines, Telephone..... 22
Worries of Telephone Men..... 176

Y

York, Pa., to Use Automatic..... 22
Year More, Says Lewis..... 261